

Claims

What is claimed is:

1. A method of sending an email to a mailing list in which at least one recipient is registered, comprising the steps of:

creating a common key from a public key generated based on an email address of the mailing list and a secret key generated based on an email address of a sender of the email; and

sending an email, which includes data encrypted with the common key, to the email address of the mailing list.

2. The method according to claim 1, wherein the email is broadcast to the at least one recipient registered in the mailing list from a machine which handles the mailing list.

3. The method according to claim 1, the secret key is generated by a center and supplied via email.

4. An email processing method suited for when receiving an email addressed to a mailing list in which at least one recipient is registered, the email processing method comprising the steps of:

creating a common key from a secret key generated based on an email address of the mailing list and a public key generated based on an email address of a sender of the email; and

decrypting encrypted data included in the email with the common key.

5. The email processing method according to claim 4, wherein the email is broadcast from a remote machine which handles the mailing list.

6. The email processing method according to claim 4, the secret key is prepared by a center and supplied via email.

7. A computer-readable recording medium comprising:

first program code means for causing a computer to create a common key from a public key generated based on an email address of a mailing list, in which at least one recipient is registered, and a secret key generated based on an email address of a sender of the email; and

second program code means for causing the computer to send an email including data encrypted with the common key to the email address of the mailing list.

8. A computer-readable recording medium suited for when receiving an email addressed to a mailing list in which at least one recipient is registered, the email including encrypted data, the computer-readable recording medium comprising:

first program code means for causing a computer to create a common key from a secret key generated based on an email address of the mailing list and a public key generated based on an email address of a sender of the email; and

second program code means for causing the computer to decrypt encrypted data included in the email with the common key.

9. An apparatus for sending an email to a mailing list in which at least one recipient is registered, the email including encrypted data, the apparatus comprising:

means for creating a common key from a public key generated based on an email address of the mailing list and a secret key generated based on a predetermined email address; and

means for sending the email including data encrypted with the common

key, to the mailing list.

10. The apparatus according to claim 9 further including a recording medium for storing the secret key generated based on the predetermined email address.

11. The apparatus according to claim 9, wherein the email is broadcast to the at least one recipient from a machine which handles the mailing list.

12. The apparatus according to claim 9, wherein the predetermined email address is an email address of the apparatus.

13. An apparatus for receiving an email addressed to a mailing list in which at least one recipient is registered, comprising:

means for creating a common key from a public key generated based on an email address of a sender of the email and a secret key generated based on an email address of the mailing list; and

means for decrypting encrypted data included in the email by utilizing the common key.

14. The apparatus according to claim 13 further including a recording medium for storing the secret key generated based on the email address of the mailing list.

15. The apparatus according to claim 13, wherein the email is broadcast from a remote machine which handles the mailing list.

16. An apparatus for sending an email including encrypted data to a mailing list in which at least one recipient is registered and for receiving an email addressed to the mailing list, the apparatus comprising:

means for creating a first common key from a public key generated based on an email address of the mailing list and a first secret key generated based on a predetermined email address;

means for sending an email including data encrypted with the first common key, to the mailing list; and

means for creating a second common key from a public key generated based on an email address of a sender of a received email and a second secret key generated based on the email address of the mailing list; and

means for decrypting encrypted data included in a received email by utilizing the second common key.

17. The apparatus according to claim 16 further including a recording medium for storing the first secret key and the second secret key.

18. The apparatus according to claim 16, wherein the email the apparatus sends is broadcast to the at least one recipient from a machine which handles the mailing list.

19. The apparatus according to claim 16, wherein the predetermined email address is an email address of the apparatus.